APPENDIX B2:

SEMINOE ROAD EMISSIONS INVENTORY

Appendix B2 – Seminoe Road Emissions Inventory

The following is a list of the tables included within this appendix.

B2.1 Construction Emission Tables

B2.1.1	Well Pad Construction
B2.1.2	Resource Road Construction
B2.1.3	Well Pad/Resource Road Traffic
B2.1.4	Well Pad/Resource Road Heavy Equipment
B2.1.5	Rig-up, Drilling, and Rig-down Traffic
B2.1.6	Rig-up, Drilling, and Rig-down Heavy Equipment
B2.1.7	Drilling Engines
B2.1.8	Completion Traffic
B2.1.9	Completion Heavy Equipment
B2.1.10	Completion Engines
B2.1.11	Utility Installation
B2.1.12	Utility Installation Traffic
B2.1.13	Utility Heavy Equipment

B2.2 Production Emission Tables

B2.1.15 Wind Erosion Output

B2.1.14 Wind Erosion

B2.2.1	Production Traffic
B2.2.2	Production Heavy Equipment
B2.2.3	Down-hole Pumps
B2.2.4	Wells Outside Electrification Boundary by Year
B2.2.5	Seminoe Road Compressor Station #1
B2.2.6	Seminoe Road Compressor Station #2
B2.2.7	Seminoe Road Compressor Station #3
B2.2.8	Wind Erosion
B2.2.9	Wind Erosion Output

Table B2.1.1 Seminoe Road Emissions Inventory Well Pad Construction

605 Skyline Drive Laramie, WY 82070 Phone: (307) 742-3843

Fax:

(307) 745-8317

Project: Seminoe Road

Phase: Road Construction

Activity: Fugitive Particulate Emissions from

Well Pad Construction

Engineer: Cassady Marshall

Date: 4/5/2004

Well Pad Area	Construction Activity TSP Emission Factor ¹	Construction Activity Duration ²	Construction Activity Duration	Construction Activity Duration	Construction Activity Duration ³	Emission Control Efficiency	PM ₁₀ Emissions (controlled) ⁴	PM-2.5 Emissions (controlled) ⁵
(acre)	(tons/acre-month)	(days/well pad)	(hours/day)	(days/week)	(months/year)	(%)	(lb/well)	(lb/well)
2.2	1.2	4	10	7	8	0	253.44	66.88
				Well	Pad Construction Emis	sions (lb/day/well)	63.36	16.72
				We	II Pad Construction Emi	ssions (lb/hr/well)	6.34	1.67

¹ AP-42 (EPA, 1995), Section 13.2.3, "Heavy Construction Operations".

size range monthly emissions converted to daily and hourly emissions based on 30-day month. ASSUMING that 9.5% of the TSP is in the PM_{2.5}

size range, monthly emissions converted to daily and hourly emissions based on 30-day month.

² Days per well estimated by TRC.

³ Construction occurs 8 months per year, March -October.

⁴ AP-42 (EPA, 1998), Section 13.2.2 "Unpaved Roads", Background Document. Assuming that 36% of the TSP is in the PM₁₀

Table B2.1.2 Seminoe Road Emissions Inventory Resource Road Construction

605 Skyline Drive Laramie, WY 82070 Phone: (307) 742-3843

Fax:

(307) 742-3843 (307) 745-8317 Project: Seminoe Road
Phase: Road Construction

Activity: Fugitive Particulate Emissions from

Resource Road Construction

Engineer: Cassady Marshall

Date: 4/5/2004

Resource Road Area ¹	Construction Activity TSP Emission Factor ²	Construction Activity Duration ³	Construction Activity Duration	Construction Activity Duration	Construction Activity Duration ⁴	Emission Control Efficiency	PM-10 Emissions (controlled) ⁵	PM-2.5 Emissions (controlled) ⁶
(acres)	(tons/acre-month)	(days/pad)	(hours/day)	(day/week)	(months/year)	(%)	(lb/pad)	(lb/pad)
2.4606	1.2	4	10	7	8	0	283.46	74.80
				Resource F	Road Construction Emis	ssions (lb/day/well)	70.87	18.70
				Resource	Road Construction En	nissions (lb/hr/well)	7.09	1.87

¹ Construction Area = 0.58 mi/well x 35-ft ROW = 2.4606 acres.

esize range monthly emissions converted to daily and hourly emissions based on 30-day month. Assuming that 9.5% of the TSP is in the PM_{2.5}

size range, monthly emissions converted to daily and hourly emissions based on 30-day month.

²AP-42 (EPA, 1995), Section 13.2.3, "Heavy Construction Operations".

³ Days per well estimated by TRC.

⁴ Construction occurs 8 months per year, March -October.

⁵ AP-42 (EPA, 1998), Section 13.2.2 "Unpaved Roads", Background Document. Assuming that 36% of the TSP is in the PM₁₀